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## Section II. Introduction

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The 2001 Maricopa County Maternal and Child Health Needs Assessment updates MCH statistics for Maricopa County as a whole as well as addresses three geographic areas that were identified in previous years' needs assessments as 'pockets of need'. The three geographic areas addressed in this year's needs assessment are South Phoenix, the Maryvale Neighborhood, and the Garfield Neighborhood.

These areas were selected for assessment because of both adverse MCH indicators and existing community based coalitions/partnerships within their boundaries. These partnerships and coalitions make possible the planning and implementation of effective health interventions at the neighborhood level. Through this geographic based Needs Assessment, MCDPH hopes to provide the three communities with the information necessary to allow the communities to have the biggest impact on health disparities within their borders.

Detailed geographic descriptions of each of the three areas are provided in the introduction for each of the areas. Within the three geographic areas, five substantive areas of Maternal and Child Health are assessed:

- 1) Infant Mortality;
- 2) Low Birth Weight and Preterm Births;
- 3) Prenatal Care;
- 4) Teenage Births;
- 5) Tobacco and Alcohol Use.

Additionally, a demographic profile, based on data from the 1995 Special Census of Maricopa County<sup>11</sup>, and an overview of births for each area are included.

Whenever feasible, comparisons between the geographic areas, Maricopa County, and the Healthy People 2000 (HP 2000) and 2010 (HP 2010) objectives are provided. Healthy People 2000 and Healthy People 2010 are national initiatives that set goals for the nation to achieve by the respective deadlines regarding important health indicators. Healthy People 2010 has two central goals: 1) increasing the quality and years of healthy life and 2) eliminating health disparities<sup>12,13</sup>."

In coming years, the needs assessment will branch out to address other geographic areas within Maricopa County, both as an assessment of the ten defined health status areas in Maricopa County and as an analysis of cities in Maricopa County with a population greater than 100,000. Additionally, an in-depth look at the county as a whole will be conducted on a periodic basis.

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### Section III. Definitions, Data Sources, Methods, and Acronyms

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Race and ethnicity are presented in this needs assessment as a single indicator, including White non-Hispanic (NH), Hispanic/Latino, Black/African American NH, Native American NH, and Asian NH. Demographic data for Maricopa County are the only exception, as 2000 Census Data were used to describe the racial and ethnic breakdown of Maricopa County. Census Data for 2000 available at press-time only provided race information, including both Hispanic and Non-Hispanic ethnicity in each of the races. Persons are classified by race and ethnicity according to how they identify themselves as such to census takers or hospitals, or how their relatives identify them to the funeral director upon their death. “Hispanic” refers to persons who trace their origin or descent to Mexico, Puerto Rico, Cuba, Central America, South America, or other Spanish cultures and can be of any race<sup>14,15</sup>.

Birth data in this needs assessment come from the 1996 through 1999 birth cohorts for Maricopa County, Arizona. Birth data presented specific to certain geographic areas were geocoded (using Environmental Systems Research Institute, ArcView GIS Version 3.1 software) by Maricopa County (1996 and 1997 data) or by the Arizona Department of Health Services (ADHS; 1998 and 1999 data). Geocoding for each year was completed with greater than 95% success.

Death certificates were linked with birth certificates for additional infant information. Linked infant death data originated from two sources over the four years. The 1996 through 1998 linked infant death data came from files distributed

to Maricopa County by ADHS. These files matched two birth years to one death year. The percent linked was 96.95% for 1996, 94.20% for 1997, and 96.93% for 1998. The linked infant death file for 1999 was prepared by MCDPH by matching resident births in Maricopa County during 1999 to resident infant deaths in Maricopa County during 1999 and 2000 (birth cohort). Discrepancies in infant mortality rates in this publication with previous Needs Assessments are due to the use of linked infant death data for infant mortality rate calculations in the 2001 Needs Assessment.

Data used for comparisons to Arizona were taken from Arizona Department of Health Services, Arizona Health Status and Vital Statistics Reports, 1996 through 1999. Data used for comparisons with the United States were taken from the Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics Reports.

School drop out rates for the geographic areas and the county were calculated from the Arizona Department of Education, Division of Research and Policy web site. South Phoenix and Maryvale drop out rates were calculated from all schools that fell within the geographic boundaries of these areas. Garfield only contained one high school within its geographic border, Summit High School, which is a charter school. Because of this, drop out rates for Garfield were calculated using all schools identified as serving the Garfield neighborhood in the Garfield Community Assessment conducted by students at Arizona State University.

Population data originated either from the Arizona Department of Economic Security or the United States Census Bureau. At the time of preparation of this needs assessment, 2000 United States Census Data were not available by census tract, age, and sex for Maricopa County. Because age and sex are crucial components of the denominator for a majority of the rates used, the 1995 Special Census of Maricopa County was used as the primary source of population data for the geographic areas included in this assessment. Because race and ethnicity data were available from the 2000 Census for Maricopa County, the racial/ethnic population distribution of Maricopa County was presented from 2000 Census Data. This is the only occasion in this document where 2000 census data were used.

Data citing the Pregnancy Risk Assessment Monitoring System (PRAMS) were collected during an ongoing pilot study of PRAMS in Maricopa County (South Phoenix area only). PRAMS is a population-based survey of women who recently delivered a baby. The survey was developed by the Centers for Disease Control and Prevention as a means of identifying risk factors to address infant mortality and low birthweight rates that were no longer declining in the United States. There are currently 32 states participating in PRAMS. Maricopa County is the first local, non-state jurisdiction to undertake PRAMS surveillance.

The first phase of Maricopa County PRAMS was a pilot study of the South Phoenix Health Status Area of Maricopa County. South Phoenix was selected because of existing partnerships with agencies in the South Phoenix area, as well as because it was deemed to be a population that would provide unique challenges for follow-up. To date, a total of 610 mothers who recently delivered were sampled with 266 responding, yielding a

44% response rate. These responses make up an integral component of this year's needs assessment, missing in the past. These responses provide us with insight into maternal behaviors, experiences, and opinions concerning issues of consequence to Maternal and Child Health.

The Perinatal Periods of Risk Approach (PPOR) was conducted in the South Phoenix Health Status Area using birth certificate, death certificate, and fetal death certificate data from women giving birth during the years 1995 through 1998 in the South Phoenix area. The PPOR analysis is an additional source of information about perinatal health. PPOR was developed by the World Health Organization (WHO) as a means of identifying the areas in a community where intervention would provide the largest improvement to infant health. PPOR accomplishes this by 'mapping' the contribution made in stages of the perinatal continuum to the overall fetio-infant mortality rate according to the birth of the child or fetus and the age at death. The perinatal continuum is broken up into four key factors associated with fetal and infant development: maternal health and prematurity, maternal care, newborn care, and infant health (see Map of Feto-Infant Mortality by Periods of Risk on next page). By identifying the periods of risk that are contributing the most to the fetio-infant mortality rate, intervention efforts can be targeted to provide the best allocation of resources and to have the greatest potential for impacting the fetio-infant mortality rate.

<b>Map of Feto-Infant Mortality by Periods of Risk</b>				
<b>Birthweight</b>	<b>Age at Death</b>			
		Fetal Deaths	Neonatal Deaths	Post Neonatal Deaths
	500-1499 grams	<b>Maternal Health and Prematurity</b>		
	1500+ grams	<b>Maternal Care</b>	<b>Newborn Care</b>	<b>Infant Health</b>

All data pertaining to the charts and graphs in this document are included in the second volume, the Maricopa County Maternal and Child Health Needs Assessment 2001: Supplemental Data Tables. The supplementary data tables are also located on the worldwide web site, “[http://www.maricopa.gov/public\\_health/epi.asp](http://www.maricopa.gov/public_health/epi.asp).” At the end of this document, there is a data request form to obtain additional information from the Maricopa County Department of Public Health. Questions pertaining to the data in this Needs Assessment should be directed to Liva Nohre in the Division of Epidemiology and Data Services, 602-506-6826. Questions pertaining to Maricopa County Department of Public Health’s maternal and child health programs and services should be directed to Rose Howe in the Division of Community Health Services, 602-372-1441.

References to the Arizona State University (ASU) students’ community assessments pertain to course work conducted by students in the Master in Public Health program, in the Community Health Assessment course. Groups of students surveyed community members and providers in the Garfield and Maryvale communities as a way of developing a community based approach to addressing elevated infant mortality rates in the communities.

**Abbreviations Defined**

ADHS.....	Arizona Department of Health Services
AHCCCS.....	Arizona Health Care Cost Containment System
APNCU.....	Adequacy of Prenatal Care Utilization
ASU .....	Arizona State University
AZ.....	Arizona
CDC.....	Center for Disease Control
DES.....	Department of Economic Security
GIS.....	Geographic Information System
HP 2000.....	Healthy People 2000
HP 2010.....	Healthy People 2010
HS.....	High School
IHS.....	Indian Health Services
IMR.....	Infant Mortality Rate
LBW.....	Low Birth Weight
MC.....	Maricopa County
MCDPH.....	Maricopa County Department of Public Health
MCH.....	Maternal and Child Health
NCHS.....	National Center for Health Statistics
NH.....	Non-Hispanic
NMR.....	Neonatal Mortality Rate
NVSR.....	National Vital Statistics Report
PNC.....	Prenatal Care
PNMR.....	Post-Neonatal Mortality Rate
PPOR.....	Perinatal Periods of Risk
PRAMS.....	Pregnancy Risk Assessment Monitoring System
STD.....	Sexually Transmitted Diseases
U.S.....	United States
VLBW.....	Very Low Birth Weight
WHO.....	World Health Organization
WIC.....	Women, Infants, and Children